

*** NETANSWERS INTERNET EXTRA ***
*** Number 35: New V.90 modems ***

The new breed of 56 Kbps modems is out. Is it time to upgrade or should you wait? What about your old modem?

-.-.- V.90 -- the V stands for Vroom! -.-.-

If you haven't heard about "V.90" modems yet, you will: if the upcoming marketing blitz doesn't get your attention, your Internet service provider will. V.90 is the latest and greatest modem protocol -- some say it will be the last analog modem protocol. Perhaps that's a bit optimistic -- I think that's what they said about my 9600 Bps modem. Still, V.90 is here... and here to stay.

V.90 modems can receive data at up to 56 Kbps. It was created by a collaboration between the people who brought us the x2 and k56flex modem protocols. Way back in issue number ten, I wrote about 56K modems and noted that the two then-current 56 Kbps modem standards, x2 and k56flex, wouldn't talk to each other. If your Internet service provider uses x2 modems, you also need x2 to get maximum speed; if they use k56flex, that's what you need. V.90 ends the babel: any V.90 modem will be able to communicate with any other V.90 modem.

That's a minor miracle. Once your ISP upgrades to V.90, you'll be able to communicate with it at top speed -- it doesn't matter what brand of modem they or you choose. V.90 isn't any faster than the older standards, but it is, well, better behaved.

V.90 won't make the world a perfect place -- at least not immediately, because it is incompatible with both x2 and k56flex.

I can hear your exasperated groans. It's not so bad. You simply won't want to upgrade right away, at least not until your ISP does. You see, since V.90 isn't compatible with x2 or k56flex, your new V.90 modem won't have anyone to talk with until your ISP upgrades their equipment. If you currently have a 56K connection to your ISP that's working fine, don't upgrade your modem until your ISP says it's time to do so.

Caveat number one: Some V.90 modems also support x2 and k56flex, enabling them to communicate with ISPs using any of the three protocols. If your modem can do two or all three protocols, you can start using it now. When your ISP upgrades to V.90, you'll have no worries.

Relatively few ISPs are using V.90 yet, but I believe that sooner or later, most ISPs will indeed upgrade their modems. Currently CompuServe uses x2 for fast modem connections. Although CompuServe hasn't yet announced plans to upgrade to V.90, its parent company (America Online) has announced that it is upgrading its high-speed access numbers to V.90. The changeover will likely affect CompuServe users soon. More information, when it is available, will be at GO PHONES.

If you already have a 56 Kbps modem, either x2 or k56flex, you will be able to upgrade it to V.90. Check your modem manufacturer's web site for the particulars. Many manufacturers provide free "flash ROM" upgrades you can download from the Web. With one, your modem can learn to talk V.90 in just a few minutes. If your

56K modem can't be flash-ROM upgraded, it will require a hardware upgrade that will cost you a few bucks.

If you have an older modem -- such as a 28.8 KBPS model, it will probably have to be replaced. I suggest waiting until your ISP upgrades to V.90 before buying a new modem. If you can't wait, make sure the modem you buy is both compatible with your ISP's current standard (x2 or k56flex) and upgradable to V.90.

Caveat number two: Like their predecessors, V.90 modems are capable of receiving data at 56 KBPS but don't actually communicate that fast. They are capped at 53 KBPS due to arcane FCC regulations that restrict power output of ISPs' modems. As with older modems, data that your computer sends travels more slowly, at 31.2 KBPS.

All 56K modems -- whether they're talking with V.90 or not -- are very finicky about connection quality. Even the slightest amount of line noise will cause the modems to drop to a slower speed. Even with good quality lines, it is rare to see connections over 50 KBPS.

What does it all mean? V.90 is coming -- sooner or later. If you want the fastest Internet connection possible, you will have to upgrade to V.90. But it's not wise to get on that bandwagon until your ISP says to come aboard.

==*== SITES FOR MORE INFORMATION ==*==

V90.com: <http://www.v90.com>

No Hype 56K modem page: <http://www.mactimes.com/lowend/56k/index.html>

56K Standard Page (focuses on Hayes modems): <http://www.56kstandard.com>

56K Central (focuses in 3COM/U.S. Robotics modems): <http://www.3com.com/56k/>

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The NetAnswers Internet Extra is free to all CompuServe members. It's available in the Internet Community Forum -- GO INETCOM and look in file library 11, "NetAnswers".

Got comments or ideas for future issues? We want to hear 'em. Just send a message to savetz@compuserve.com (74774,2725).

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